

SYSTEM AND METHOD FOR MEASURING CROSS-SECTIONAL AREAS AND PRESSURE GRADIENTS IN LUMINAL ORGANS

Abstract of the Disclosure

The invention comprises a system, catheter and method for measuring the cross-sectional areas and pressure gradients in any hollow organ, such as, for example, blood vessels. One embodiment of such a system includes: an impedance catheter capable of being introduced into a targeted site; a solution delivery source; a constant current source; a balloon inflation control device; and a data acquisition and processing system that receives conductance and/or pressure gradient data from the catheter and calculates the cross-sectional area of the targeted site. In one embodiment, the catheter has an inflatable balloon along its longitudinal axis, thereby enabling the breakup of any materials causing stenosis at the targeted site and/or distention and delivery of an optional stent into the targeted site.

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